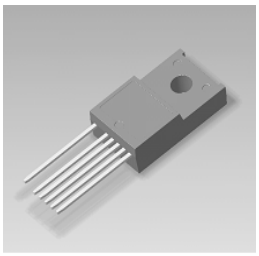
# STR-W6200D Series

## Power IC for PWM Type Switching Power Supply with Low Noise and Low Standby Power

### ■ General Descriptions

The STR-W6200D series products are power ICs for switching power supplies, incorporating a power MOSFET and a current-mode type PWM controller IC. The low standby power is accomplished by the automatic switching between the PWM operation in normal operation and the burst-oscillation under light load condition. The product achieves high cost-performance power supply systems with few external components.



**TO-220F-7**

### ■ Features

- Current-Mode Type PWM Control
- PWM with Jittering Function
  The function reduces the EMI noise and enables simplified (low-cost) EMI filters.
  The jittering period is adjustable by an external capacitor.
- Auto-Standby Function
  The burst-oscillation enables the low standby power.
  Input Power $P_{IN}$ < 100mW at no load
- Built-in Startup Circuit, enabling low power consumption
- Overcurrent Protection (OCP) with Built-in Input Compensation Circuit
  The function has less AC input voltage dependency.
- Overload Protection (OLP) with Built-in Delay Timer ( the delay time is adjustable by an external capacitor)
- External Latch Protection (ELP)
  The function enables the latch shutdown by external signal.
- Bias-Assist Function, reducing operating $V_{CC}$ voltage drop
  The function improves the startup operation and makes a low $V_{CC}$ capacitor applicable.
- Leading Edge Blanking Function
- Slope Compensation Function
- Built-in Avalanche Energy Guaranteed High-Voltage Power MOSFET
- Various Protections
  Overcurrent Protection (OCP)---------- Pulse-by-Pulse
  Overload Protection (OLP) ---------- Auto-Restart
  Overvoltage Protection (OVP) ---------- Latch Shutdown
  Thermal Shutdown Protection (TSD) ---------- Latch Shutdown

### ■ Applications

Switching Power Supplies for
Home Appliances (White Goods), Digital Consumer Equipment, OA Equipment, Industry Machines, Communication Devices, Others

### ■ Product Lineup

| Product No. | $f_{OSC}$ (kHz) | MOSFET $V_{DSS}$ (MIN) (V) | $R_{DS(ON)}$ (MAX) (Ω) |
|---|---|---|---|
| STR-W6251D | 67 | 650 | 3.95 |
| STR-W6252D | 67 | 650 | 2.8 |
| STR-W6253D | 67 | 650 | 1.9 |

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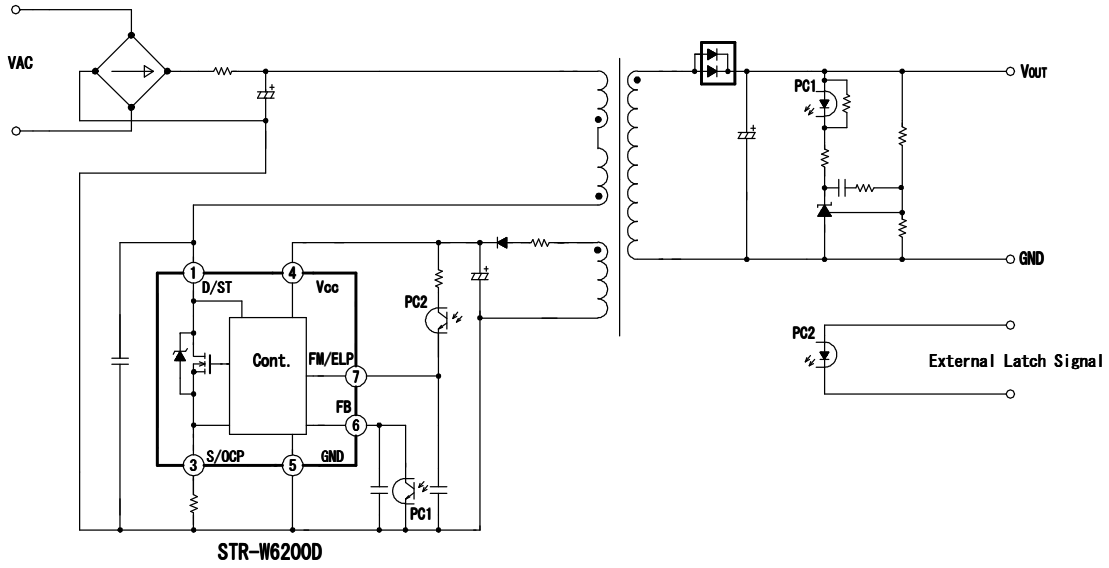
## ■ Typical Application Circuit

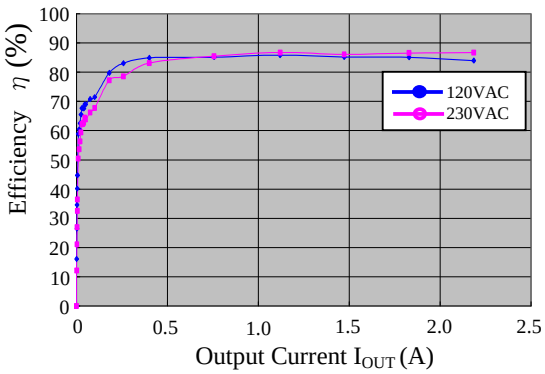



## ■ Typical Electrical Characteristics

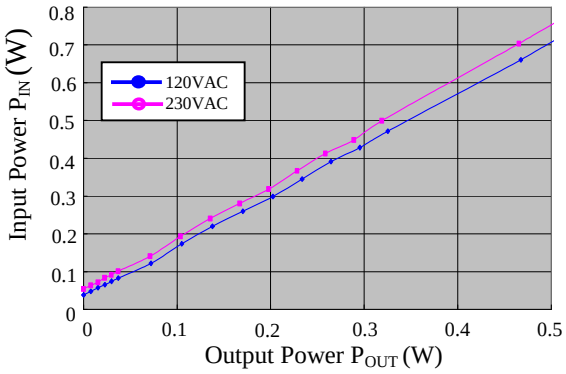
### STR-W6251D Power Supply Characteristics

### Input: 85 - 264VAC, $P_{OUT}$: 10W (5V/2A)

**Efficiency $\eta$ — Output Current $I_{OUT}$**




**Input Power $P_{IN}$ — Output Power $P_{OUT}$**





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